

# Multi-screen Splicing Processor 8-16

## Product Specifications



Model: RDMP1000-H08-H16

## I. Product Overview

The Multi-screen Splicing Processor 8-16 is a newly launched multifunctional video wall processor featuring an integrated design, new architecture, and UI design for ultra-high-definition video signal acquisition and transmission. It supports video image resolutions up to full 4:4:4 chroma sampling within the RGB color space. Utilizing a pure hardware FPGA + embedded architecture, it offers extensive customizable functionality tailored to client needs.

It supports diverse display modes including multi-source wall projection, video wall stitching, roaming, cross-screen display, zoom in/out, picture-in-picture, picture-out-of-picture, and image overlay. Multiple control methods are supported, including PC and tablet interfaces.

## II. Features and Functions

### ► Device Architecture

1. FPGA + embedded architecture. The embedded system ensures stability for 24/7 continuous operation, while the FPGA delivers reliable image processing capabilities.

2. Features an integrated design that is compact, lightweight, and plug-and-play. Supports upgrades and maintenance. Aspect ratio conforms to the golden ratio. External power supply.

### ► Basic Functions

1. Supports HDMI high-definition signal input and HDMI high-definition digital signal output;
2. Supports wall-mapping of any video signal, including roaming, cross-screen display, zoom in/out, picture-in-picture, picture-out-of-picture, and image overlay;
3. Supports 9 windows per screen with full-screen layer stacking ( $9 \times N$  layers, where  $N$  is the number of tiled screens). The entire processor handles 144 windows with real-time display of all window content without frame loss. Window operations remain smooth, free from stuttering, flickering, or black screens;
4. Supports single-port capture of 1920x1080@60Hz ultra-HD signals; supports single-port output of 1920x1080@60Hz ultra-HD signals;
5. Supports end-to-end low latency;
6. Built-in FPGA audio de-embedding and switching functionality, enabling separation of any HDMI audio channel and routing to 3.5mm audio output ports;

## Multi-screen Splicing Processor

7. Low power consumption of 35W, achieving green energy efficiency;
8. Supports control via Android tablet/mobile apps;
9. Supports WEB control, enabling switching of preset scenes via web browsers on computers/phones/tablets;
10. Supports saving over 1000 preset scenes;
11. Allows pre-setting multiple scenes for effortless switching between various scenarios;
12. Scene switching latency <30ms, ensuring seamless, lag-free operation without blue screens or screen flickering;
13. Supports ultra-high-definition subtitles with flexible customization of font, color, size, background color, and transparency, plus adjustable scrolling speed;
14. Supports ultra-high-definition static background images for quick and easy replacement, enhancing display vibrancy;
15. Proprietary adaptive deinterlacing, scaling, and OSD technology ensures smooth, crisp visuals;
16. Supports LED displays with customizable output resolution;
17. Supports source and display device validity detection with status LED indicators;
18. Device output port synchronization latency = 0ns (excluding screen-introduced variations);

19. Supports multi-user management;
20. Supports online device upgrades via upgrade tools;

► Other Features

1. Supports serial port control for large screen power on/off;
2. Supports secondary development, providing third-party user control protocols and interfaces;

► Qualification Certificates

1. ISO9001 certification with official seal;
  2. Compulsory Product Certification (CCC) test report from National Product Quality Supervision Center with official seal;
  3. Inspection report copy from Electronic Product Quality Inspection Center with official seal;
  4. CCC, CE, RoHS, and computer software copyright certifications with official seal copies.
- III. Technical Specifications**

### III. Technical Specifications

Category	Item	Specifications
<b>Interface Parameters</b>	HDMI-OUT	16 x HDMI 1.4 digital interfaces Supports 1920×1080P@60 output Supports custom resolutions
	HDMI-IN	8 x HDMI 1.4 digital interfaces Supports 1920×1080P@60/50, 1920×1080P@30/25, 720P60/50, 1024×768
	RJ45 LAN Port	10/100M auto-negotiation, supports remote control of the processor by other devices within the LAN
	RS232	Supports connection to large screens and central control systems
	AUDIO-OUT	3.5mm audio output port (1 channel)
	Grounding Wire	Grounding
	Windows Client Software	MultiScreenCtrl
	Android Client Software	MultiScreenCtrl

## Multi-screen Splicing Processor

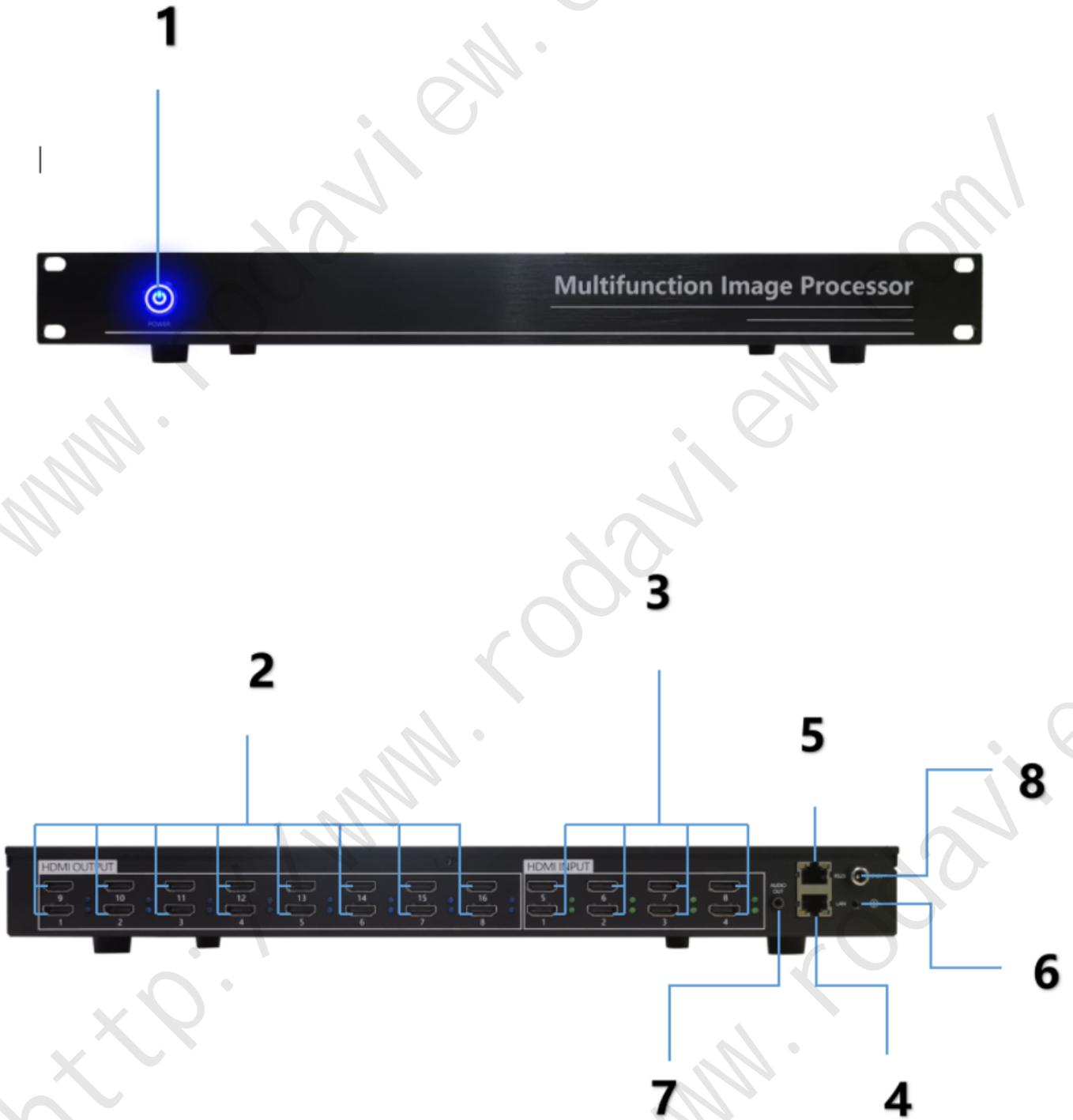
<b>Other</b>	Function	(HD signal input/output, video wall display / multi-screen splicing / overlay roaming & scaling / independent audio output)
	Single Screen Window Count	9
	Power Consumption	Approx. 35W
	Power Supply	DC 12V/5A
<b>Environmental Parameters</b>	Operating Temperature	0°C ~ 50°C
	Operating Humidity	10% ~ 75% RH (non-condensing)
	Storage Temperature	-25°C ~ +125°C
<b>Physical Specifications</b>	Net Weight	3.2kg
	Gross Weight	4.4kg(with packaging)
	Chassis Dimensions	482 × 255 × 55 mm
<b>Packaging Specifications</b>	Package Dimensions	550 × 380 × 130 mm
	Package List	1 × Main Unit, 1 × Power Cord, 1 × Power Adapter, 1 × Network Cable

## IV. Product Dimensions

1U chassis (supports up to 8 inputs and 16 outputs)



## V. Panel Buttons and Ports



## Multi-screen Splicing Processor

No.	Interface	Description
1	POWER	Power indicator, blue light on indicates normal operation
2	HDMI-OUT	HDMI 1.4 digital interface Supports 1920 * 1080P@60 output Supports custom resolutions
3	HDMI-IN	HDMI 1.4 digital interface Supports 1920 * 1080P@60/50, 1920 * 1080P@30/25
4	LAN	10/100M auto-negotiation Supports remote control of the processor by other devices within the LAN
5	RS232	Supports connection to large screens and central control systems
6	Grounding Wire	Grounding
7	AUDIO-OUT	Supports one 3.5mm audio output channel
8	Power	DC 12V/5A

# VI. Connection Diagram

